



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : David W. Clarke et al.
Serial No. : 09/921,293
Filed : August 3, 2001
Title : VORTEX FLOWMETER

Art Unit : 2857
Examiner : Jeffrey R. West

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450


INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449. It should be noted that document AA (U.S. Publication No. 2003/0028334) is commonly-owned and related to the present application.

This statement is being filed after a first Office action on the merits, but before receipt of a final Office action or a Notice of Allowance. A check for \$180 in payment of the late submission fee of §1.17(p) is enclosed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: FEBRUARY 23, 2004



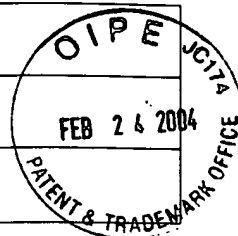
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Substitute Form PTO-1449 (Modified) Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 02052-100001	Application No. 09/921,293
	Applicant David W. Clarke et al.		
	Filing Date August 3, 2001	Group Art Unit 2857	



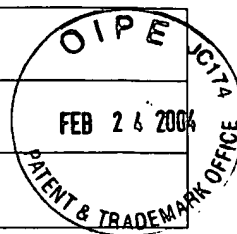
U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	2003/0028334	02/06/2003	Ghaoud et al.			
	AB	3,709,034	01/09/1973	Herzl			
	AC	4,069,713	01/24/1978	Gassmann			
	AD	4,123,940	11/07/1978	Herzl et al.			
	AE	5,774,378	06/30/1998	Yang			
	AF	6,311,136	10/30/2001	Henry et al.			
	AG	6,505,519	01/14/2003	Henry et al.			
	AH	6,507,791	1/14/2003	Henry et al.			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AI	1,551,220	8/22/1979	UK				

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AJ	Wood, Robert H., et al., "A Phase-Locked Loop for Driving Vibrating Tube Diameters," <u>Rev. Sci. Instrum.</u> , Vol. 60, No. 3, March 1989, pp. 493-494
	AK	Kutin, Jože, et al., "Phase-Locking Control of the Coriolis Meter's Resonance Frequency Based on Virtual Instrumentation," <u>Sensors and Actuators A: Physical</u> , 2003, pp. 86-93
	AL	Kline, S.J., and McClintock, F.A., "Describing Uncertainties in Single-Sample Experiments," <u>Mechanical Engineering</u> , January 1953, pp. 3-8
	AM	William F. Egan, "Chapter 9: Acquisition Aids," <u>Phase-Lock Basics</u> , John Wiley & Sons, Inc., 1998, pp. 209-210 and 222-227
	AN	"Test Uncertainty: ASME PTC 19.1-1998 Instruments and Apparatus" The American Society of Mechanical Engineers, An American National Standard, Performance Test Codes, pp. iii-ix and 1-112
	AO	Yang, Janice Ching-Yi, "Self-Validating Sensors," Doctoral Thesis, University of Oxford, 1993, 210 pages
	AP	Henry, M.P., and Clarke, D.W., "The Self-Validating Sensor: Rationale, Definitions and Examples," <u>Control Eng. Practice</u> , Vol. 1, No. 4, pp. 585-610, 1993
	AQ	Henry, M.P., et al., "A Self-Validating Digital Coriolis Mass-Flow Meter: An Overview," <u>Control Engineering Practice</u> , Vol. 8, 2000, pp. 487-506
	AR	Clarke, D.W., and Fraher, P.M.A., "Model-Based Validation of a DO _x Sensor," <u>Control Eng. Practice</u> , Vol. 4, No. 9, pp. 1313-1320, 1996

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	BA	Clarke, D.W., and Ghaoud, T., "Validation of Vortex Flowmeters," <u>IEEE Computing and Control Engineering Journal</u> , October 2002, pp. 237-241
	BB	Clarke, D.W., "Designing Phase-Locked Loops for Instrumentation Applications," <u>Measurement</u> , Vol. 32, 2002, pp. 205-227
	BC	Ghaoud, T., and Clarke, D.W., "Modelling and Tracking a Vortex Flow-Meter Signal," <u>Flow Measurement and Instrumentation</u> , Vol. 13, 2002, pp. 103-117
	BD	Clarke, D.W., and Ghaoud, T., "A Dual Phase-Locked Loop for Vortex Flow Metering," <u>Flow Measurement and Instrumentation</u> , Vol. 14, Nos. 1-2, 2003, pp. 1-11
	BE	Yang, Janice C.-Y., and Clarke, David W., "A Self-Validating Thermocouple," <u>IEEE Transactions On Control Systems Technology</u> , Vol. 5, No. 2, March 1997, pp. 239-253
	BF	"Specification for Data Quality Metrics for Industrial Measurement and Control Systems," <u>British Standard BS 7986:2001</u> , July 15, 2001, pp. 1-23
	BG	"General Metrology — Part 3: Guide to the Expression of Uncertainty in Measurement (GUM)," Published Document PD 6461-3:1995, British Standards, January 15, 1995, pp. 1-105

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